Glossary

Acceptable Use Policy (AUP): An Acceptable Use Policy comprises a set of rules applied by the owner/manager of a network, website or large computer system that defines the ways in which the network, site or system may be used.

Algorithm: An unambiguous set of rules or a precise step-by-step guide to solve a problem or achieve a particular objective.

Command: An instruction for the computer to execute, written in a particular programming language.

Computational thinking: Thinking about systems or problems in a way that allows computer systems to be used to model or solve these.

Computer networks: The computers and the connecting hardware (wifi access points, cables, fibres, switches and routers) that make it possible to transfer data using an agreed method ('protocol').

Creative Commons: A licensing scheme where the creator of an original work allows others to use it without seeking further permission, subject to a number of agreed conditions: www.creativecommons.org.

Data: A structured set of numbers, possibly representing digitised text, images, sound or video, which can be processed or transmitted by a computer, also used for numerical (quantitative) information.

Debug: To fix the errors in a program.

Decomposing: The process through which problems or systems are broken down into their component parts, each of which may then be considered separately.

Domain Name Service (DNS): The distributed automatic system that converts domain names into the IP addresses which are used for routing packets via the internet.

Encrypt: To securely encode information so that it can only be read by those knowing both the system used and a secret, private key.

E-safety: Used to describe behaviours and policies intended to minimise the risks to a user of using digital technology, particularly the internet.

Generalisation: A computational thinking process in which general solutions or models are preferred to or derived from particular cases.

Hardware: The physical systems and components of digital devices; see also software.

Hypertext mark-up language (HTML): HTML is the language in which web pages are composed.

Hypertext transfer protocol (HTTP): HTTP is the standard protocol for the request and transmission of HTML web pages between browser and web server.

Input: Data provided to a computer system, such as via a keyboard, mouse, microphone, camera or physical sensors.

Interface: The boundary between one system and another – often used to describe how a person interacts with a computer.

Internet Protocol (IP) addresses: Numeric addresses uniquely specifying computers directly connected to the internet, also used on private networks to uniquely identify computers on that network.

Loop: A block of code repeated automatically under the program’s control.

Network server: A computer connected to a local area network providing services – such as file storage, printing, authentication, web access or email – automatically to other computers on the network.

Open source software: Software in which the source code is made available for others to study, and typically adapt, usually with few if any restrictions.

Operating system: The programs on a computer which deal with internal management of memory, input/output, security and so on, such as Windows 8 or iOS.

Output: The information produced by a computer system for its user, typically on a screen, through speakers or on a printer, but possibly through the control of motors in physical systems.

Packets of data: A small set of numbers that get transmitted together via the internet, typically enough for 1000 or 1500 characters.

Programmable toys: Robots designed for children to use, accepting input, storing short sequences of simple instructions and moving according to this stored program.

Program: A stored set of instructions encoded in a language understood by the computer that does some form of computation, processing input and/or stored data to generate output.

Repetition: Executing a section of computer code a number of times as part of the program.

Router: Network hardware which forwards packets of data onwards to the most appropriate hardware to which it is connected.

Screencast: A recording of on-screen action that is often accompanied by an audio narration.

Script: A computer program typically executed one line at a time through an interpreter, such as the instructions for a Scratch character.

Selection: A programming construct in which one section of code or another is executed depending on whether a particular condition is met.

Sequence: To place program instructions in order, with each executed one after the other.

Simulation: Using a computer to model the state and behaviour of real-world (or imaginary) systems, including physical or social systems; an integral part of most computer games.

Sprite: A computer graphics object that can be controlled (programmed) independently of other objects or the background.

Uniform Resource Locator (URL): A standard for specifying the location on the internet of certain files.

Variables: A way in which computer programs can store, retrieve or change data, such as a score, the time left, or the user’s name.

Web server: A service running on a computer (or sometimes for the computer itself) that returns HTML data for a web page when it receives an HTTP request via the local network or the internet.

World Wide Web: A service provided by computers connected to the internet (web servers), in which pages of hypertext (web pages) are transmitted to users.